



# POLISHING FILTER FOR EFFLUENT TREATMENT IN REFINERY AND PETROCHEMICAL PLANT



## Filtersafe Case Study

### BACKGROUND & CHALLENGE

The custodian of Malaysia's national oil and gas resources, Petronas, constructed a refinery and integrated petrochemical plant which involved the largest effluent treatment plant in Asia. Their challenge was to maximize water reuse by polishing the treated effluent from fine particles, while minimizing footprint and water consumption.

### FILTERSAFE SOLUTION

Filtersafe's products and technologies were evaluated by the awarded EPC company and found to be the most suitable. Constructed from reliable materials, Filtersafe's fine filtration units allow for removal of high TSS and oil levels; minimize pollutants disposal; minimize the environmental footprint; and they comply with the DOSH Malaysian standard. Filtersafe provided 3 parallel horizontal automatic filtration units. Two working units were installed with an additional filter on standby. This configuration allows for continuous operation, minimal downtime and easier maintenance. The filters were successfully supplied and commissioned in February 2018.

### INDUSTRY

Energy | Refinery and Petrochemical

### APPLICATION

Polishing Filter for Effluent Treatment

### FILTERSAFE

- 30 years filtration experience
- 3,000+ installations
- 10µm upwads & 50-5,000 m<sup>3</sup>/hr.
- Modular filter technology

<b>Product</b>	Horizontal FS603H 16"
<b>Application</b>	Polishing Filter for Effluent Treatment
<b>Filtration Degree</b>	20 µm, patented 4 layered <b>smartweave™</b> screen
<b>Flow Rate</b>	2,250 m <sup>3</sup> /h
<b>Design Temperature</b>	75°C
<b>Location</b>	Southern Johor Malaysia
<b>Filter Body</b>	ASME VIII (Div 1)
<b>Removal Efficiency</b>	98%



### BENEFITS TO CUSTOMER

- Smaller footprint compared to conventional filters
- Superb cleaning efficiency with minimal downtime using patented technology and screen design
- Far lower power consumption
- Low discharge of backwash wastewater

